

# R E P O R T

OF THE

## Committee of Examinations

ON THE

### EXAMINATION

HELD AT

THE ZANE STREET GRAMMAR SCHOOL HOUSE,

November 11th and 12th, 1859,

IN THE

Second Examination Division:

WITH THE

QUESTIONS SUBMITTED

AND THE

AVERAGES OBTAINED.



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# REPORT.

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THE Committee of Examinations of the Second Examining Division, respectfully report, that agreeably to notice given, an Examination of Candidates for the situation of Assistant Teacher in any of the Grammar Schools, and of Principal or Assistant Teacher in either of the Unclassified, Secondary or Primary Schools of the First School District of Pennsylvania, was held for the Second Examination Division at the Zane Street School House, on Friday and Saturday, the 11th and 12th days of November, A. D. 1859.

The Committee was aided in its labors by Messrs. Loudersback, Laidlaw, Batt, Stephens, Barnwell, and James, Principals of the Grammar Schools in the Second Examination Division.

Annexed will be found a copy of the Questions submitted to the Applicants, together with the Rules observed in conducting the Examination, to which is appended the result, showing the averages of each candidate in the several branches of study.

The Committee recommend that Candidates for the position of Assistant Teacher, who obtained an average of 75 or more, be awarded a certificate for the situation of First Assistant in a Grammar School; those obtaining an average between 65 and 75, certificates as Second Assistants, and those obtaining be-

tween 55 and 65, certificates as Third Assistants; and that a certificate be awarded for the situation of Principal of an Unclassified School, to such as obtained an average of 75 and upwards.

There were two applicants for the position of Principal of an Unclassified School, and sixty-five applicants for Assistant in Grammar Schools; and the result of the examination, according to the above grades, shows that

For Principal of an Unclassified School, there was found qualified	1
“ First Assistant in a Grammar School, there were	“ 8
“ Second “ “ “ “	21
“ Third “ “ “ “	21

Included in the above numbers, there are four candidates who have not attained the age of seventeen years, therefore, under the rules of the Board of Control, certificates cannot be granted to them.

All of which is respectfully submitted by

A. B. IVINS,  
J. R. ANGNEY,  
T. W. MARCHMENT,  
ROBT. Q. SHELMERDINE,

*Committee on Qualifications of Teachers.*

Attest,

J. H. RANDALL, *Secretary.*

*Philadelphia, December 13th, 1859.*

## QUESTIONS

*Submitted at an Examination of Candidates for the situation of Assistant Teacher in any of the Grammar Schools, and of Principal or Assistant in either of the Unclassified, Secondary or Primary Schools, held at the Zane Street School House, on Friday and Saturday, November 11th and 12th, 1859.*

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N. B.—Until the results of the Examination in the several branches are ascertained, and the averages computed, the Candidates will be known to the Examiners by the numbers only on the cards distributed to them. Care should be taken to write the Candidate's number distinctly upon the top of each page, and to write on one side of the paper only, leaving a margin on the left side of the page. Candidates will seal and endorse with their numbers an envelope, containing a statement of the name, age, residence, the length of time engaged in teaching, where last at school as a pupil, and any other particulars it may be desirable to communicate. The Penmanship will be marked from the paper containing the Orthography exercise. Each set of answers must be put on a separate paper, and handed up as it is finished, before proceeding to another set of questions. No applicant under seventeen years of age will be examined: and no one will be permitted to take a copy of the questions from the room before the examination is concluded. In Arithmetic, Mensuration and Algebra, the work, and not merely the results, must appear on the paper. Candidates are particularly requested not to converse or communicate with each other during the examination.

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### QUESTIONS ON THEORY OF ARITHMETIC.

Prepared by A. B. Ivins.

1. In what two ways may a fraction be divided by a fraction?  
Give your reasons for your rules.
2. How do you change a compound number to an equivalent decimal of a higher denomination?

3. The *time*, the *compound interest*, and the *rate per centum* being given, how would you find the *principal*?
4. How do you find the amount for which a note must be drawn, that the proceeds after the note has been discounted at a bank, shall be any specified sum?
5. How do you find a mean proportional between two numbers?
6. Define *irrational number*, and a *specific duty*.

#### QUESTIONS ON PRACTICAL ARITHMETIC.

Prepared by A. B. Ivins.

1. When it is noon at Rome, in  $12^{\circ} 27'$  east longitude, it is at Baltimore 5 h. 56 min. 16 sec. A. M.; required the longitude of Baltimore.
2. From  $\frac{1}{2}$  of  $\frac{2}{3\frac{3}{4}}$  of  $\frac{2\frac{2}{3}}{3\frac{1}{5}}$  of 19 miles 3 furlongs 16 rods 3 yards, take  $2.078\frac{3}{4}$  miles.
3. I have 40 gallons of wine worth \$1.50 a gallon, which I wish to reduce to \$1.20 per gallon by the addition of water, how much water must I add?
4. If 1 pound of sugar be worth a dime, 2 pounds of tea worth 5 pounds of coffee, and 4 pounds of coffee be worth 7 pounds of sugar, what will be the value of 56 pounds of tea?
5. I received from a broker \$9.20 for an uncurrent \$10 note; what rate of discount did he charge me?
6. I invested \$32 in potatoes at 40 cents per bushel, part of which was lost; for the remainder, which I sold at 50 per centum advance, \$38.40 were received; how many bushels did I lose?
7. Extract the cube root of  $(.8 \times .07 - .5 \div 12.5)$ . Continue the result to three places.

## QUESTIONS ON CONSTITUTION OF THE UNITED STATES.

Prepared by William Stephens, M. D.

1. Define *legal tender*, *attainder of treason*, *customs*, and *excises*.
2. Specify the different ways in which a bill may become a law without the signature of the President.
3. Give the clause enumerating the rights of accused persons.
4. What limitation is placed on the punishment of treason ?
5. Specify the different ways in which vacancies in the Senate can be filled.
6. Give the clause specifying the manner in which Presidential electors are to be selected.
7. What rights have the States over their own militia when in the service of the United States ?

## PARSING.

Prepared by William H. Batt.

Parse the words *italicised* and *numbered* in the following lines :—

Why is life given  
 To be thus <sup>1</sup>*wrested* from us ? <sup>2</sup>*rather* why  
<sup>3</sup>*Obtruded* on us thus ? <sup>4</sup>*Who*, if he knew  
<sup>5</sup>*What* we receive, would either not accept  
 Life <sup>6</sup>*offered*, or soon beg to lay it down,  
<sup>7</sup>*Glad* to be dismissed in peace ?

## QUESTIONS ON GRAMMAR.

Prepared by Alexander H. Laidlaw, A.M.

1. Write the plurals of *canto*, *spoonful*, *Mussulman*, *phalanx*, and *aid-de-camp*.
2. State and illustrate the difference between the formation of the *present tense*, *subjunctive mood* in the *regular form*, and the formation of the same in the *subjunctive form*.

3. Write three rules relating to nominatives connected by *or*, or *nor*.
4. State whether the spelling of *advantageous*, *wholly*, and *gases* is regular or exeptional ; and give the rules which are exemplified or violated.
5. Define and illustrate *diceresis* and *metaphor*.
6. Correet the following sentenee, and state why it is incorrect :  
 "The immortal sages formed a charter where their rights are asserted."

#### DEFINITIONS AND ETYMOLOGY.

Prepared by Alexander H. Laidlaw, A. M.

Give one definition of Canvas, Canvass, Odds, Automatic, and Specific. Combine each in a sentence.

Define Temporize, Microscopic, Aphelion, Poach, and Trenchant, and exhibit the derivation of each.

#### QUESTIONS ON HISTORY OF THE UNITED STATES.

Prepared by James G. Barnwell, A. M.

1. Who successively held the sovereignty of Delaware, and when did each acquire possession ?
2. Who was the last royal governor of Virginia ; and of Massachusetts ?
3. Under what *national*, *territorial*, and *state jurisdiction*, has the present State of Minnesota successively been ?
4. When, where, under what commanders, and with what result was the first battle after the Declaration of Independence fought ?
5. What States were admitted into the Union during Polk's administration ?
6. Name five battles fought under the command of General Scott.



## QUESTIONS ON GEOGRAPHY.

Prepared by H. Y. Louderback.

1. Where is a degree of longitude the longest? Explain the reason.
2. Name five of the Ionian Isles, and state what European government now exercises jurisdiction over them.
3. Give the situation of each of the following towns:—Pondicherry, Palermo, Fayetteville, Pernambuco, and Damietta.
4. Name the countries watered by the Amazon or its tributaries, and the capital of each.
5. Where are the Channel Islands? The Vulcan Mountains? The Gulf of Cambay? The Strait of Belleisle? Cape Chatham?
6. Name the countries of Asia entirely in the North Temperate Zone.
7. Should the French be successful in constructing the projected canal across the Isthmus of Suez, through what bodies of water would you pass in sailing the shortest route from Nantes to Calcutta?

## QUESTIONS ON MENSURATION.

Prepared by A. B. Ivins.

1. Define *sector*, *similar triangles*, *trapezium*, and *irregular polygon*.
2. The area of a rhombus, and its altitude being given, how may its side be determined?
3. Give the rule for finding the area of a regular polygon, the side and the perpendicular falling from its centre upon one of the sides, being given.
4. The area of a right-angled triangle is 8 acres 1 rood 24 perches, and its altitude is 7 chains; required the perimeter of the triangle.

5. A piece of velvet contains 2 square yards; its parallel ends are respectively 1 foot 8 inches and 1 foot 4 inches wide; what is the shortest distance between the ends?
6. The area of a square inscribed in a circle is 1 acre 1 rood; required the circumference of the circumscribed circle.
7. The area of the larger of two concentric circles is 4 acres 1 rood 26.86 perches, and the diameter of the smaller circle is  $\frac{3}{4}$  of the diameter of the larger; required the area of the ring.

#### QUESTIONS ON ALGEBRA.

Prepared by William H. Batt.

1. Define *coefficient*, and *index* both literal and numeral.
2. Explain by means of an example why like signs in multiplication produce *plus*, and unlike *minus*.
3. Divide  $\frac{x^4 - b^4}{x^2 - 2bx + b^2}$  by  $\frac{x^2 + bx}{x - b}$ ; first separating into factors, and give the quotient in its lowest terms.
4. Extract the square root of  $x^4 - 2x^3 + \frac{3x^2}{2} - \frac{x}{2} + \frac{1}{16}$ .
5. Given  $x + \frac{3x - 5}{2} = 12 - \frac{2x - 4}{3}$ , to find the value of  $x$ .  
Prove that your answer is correct.
6. When a company came to pay their bill, it was found if there had been three persons more, each would have had a shilling less to pay, and if there had been two less, each would have had a shilling more to pay. How many persons were in the company, and what had each to pay?

Examination No.	STANDING.	NAMES.	Age.	Months Teaching	RESIDENCE.	Reading.	Pennmanship.	Orthography.	Defining.	Prin. of Grammar	Parsing.	Geography.	History.	Constitution.	Principles of Arithmetic.	Practical Arithmetic.	Mensuration.	Algebra.	Average.
75	1	E. A. Singer, - -	...	30	Byberry, Pa., - - -	65	95	100	78	97	94	91	73	93	88	74	98	100	88.2
76	2	John W. Saurman, -	25	48	Byberry, Pa., - - -	60	80	88	74	44	17	56	52	66	80	98	98	.....	62.5
17	1	Carrie B. Eckstein, -	20	27	302 Lombard street, -	80	80	100	71	99	86	70	70	79	85	82	99	83	83.4
62	2	Sallie L. Shattuck, -	21	30	1521 Race street, - -	85	95	92	68	90	90	60	68	74	88	99	98	53	81.5
30	3	Wilhelmina D. Long,	20	17	837 N. Tenth street, -	80	80	88	52	84	87	80	77	71	80	100	97	83	81.4
78	4	Josephine E. Thorn,	24	60	1222 S. Tenth street, -	88	80	96	70	85	66	46	49	79	80	92	70	87	76.8
21	5	Lizzie Butterworth,	16	...	411 Poplar street, - -	68	90	96	69	90	87	76	28	89	87	100	50	60	76.2
51	6	Hannah C. Nudd, -	21	6	679 Pankson street, -	65	70	100	67	80	64	71	82	94	80	70	100	45	76.0
58	7	Josephine Granger, -	18	1	1217 Stiles street, - -	66	95	96	74	97	70	67	70	86	72	63	60	67	75.6
90	8	Anna J. Ouig, - - -	17	...	247 N. Sixteenth street, -	66	70	80	31	94	86	71	68	97	72	74	90	83	75.5
39	9	Annie M. Hilliard, -	...	7	854 N. Ninth street, -	74	95	100	74	94	66	80	65	86	63	75	32	70	74.9
14	10	Henrietta C. Freeman,	17	...	1113 Thompson street, -	81	90	92	70	82	50	70	60	68	72	98	83	53	74.5
24	11	Annie E. Harvey, -	17	...	402 Franklin street, -	69	70	100	87	89	64	61	65	66	80	85	63	47	72.8
34	12	Susanna M. Nicholson	17	...	819 N. Ninth street, -	72	90	96	75	87	74	77	29	53	72	60	93	62	72.3
74	13	Amy Wood, - - -	17	...	824 Walnut street, -	95	80	100	88	85	84	66	58	71	75	82	10	37	71.6
35	14	Mary H. Llewellyn,	18	...	258 Perry street, - -	75	70	100	76	72	70	60	62	56	63	99	60	58	71.3
16	15	Anna S. Fearon, -	18	8	253 N. Twelfth street, -	69	80	92	54	82	67	40	57	73	77	48	97	53	68.4
70	16	Emily S. Thompson,	20	12	221 Pine street, - -	85	80	92	74	72	57	50	63	89	92	60	37	38	68.4
27	17	Ellen Simpson, -	16	...	Green st., above Twelfth,	70	95	96	73	70	79	83	60	60	80	58	17	37	67.5
29	18	Mary S. Wood, -	17	...	541 China street, - -	75	80	100	72	72	56	67	55	43	55	85	55	59	67.2
57	19	Sallie A. Long, -	17	...	1109 Locust street, - -	68	95	92	68	50	64	66	36	50	80	82	76	45	67.1
83	20	Susie J. Davis, -	17	...	1929 Vine street, - -	68	80	84	36	74	74	64	52	63	72	65	65	75	67.1
55	21	Eudora V. Britler, -	17	...	Church lane, Germant'n,	72	70	92	70	64	56	65	62	87	77	55	60	37	66.7
18	22	Lizzie F. Willar, -	18	...	219 Monroe street, -	71	85	88	52	60	66	43	54	77	90	83	50	47	66.6
25	23	Helen Wright, -	17	...	1633 Poplar street, - -	71	70	90	56	70	96	50	35	54	58	100	55	55	66.6
8	24	Josephine R. Cook, -	17	...	457 Caxton street, - -	66	70	96	50	90	89	77	37	34	30	80	84	62	66.5
40	25	Sidney L. Anderson,	22	12	Newtown, Bucks Co. Pa.,	82	100	96	74	70	79	63	37	14	88	77	25	57	66.3
54	26	Lizzie J. Downing, -	...	12	416 N. Twenty-second st.,	65	85	100	72	90	67	56	63	31	80	88	27	38	66.3
65	27	Lizzie M. Estell,	19	18	318 N. Nineteenth street,	65	85	96	68	40	47	56	60	59	72	88	70	45	65.5
71	28	Margaretta T. Wright,	23	60	1411 Chestnut street, -	60	85	84	65	55	57	64	92	86	63	60	44	32	65.2
67	29	Ellen Chorley, -	18	...	Ridge av., ab. Glenw'd Cy.,	60	95	100	56	62	70	67	34	43	68	40	75	75	65.0
79	30	Lizzie C. Bradshaw,	17	...	2038 Pine street, - -	70	80	84	79	77	74	57	42	79	72	35	60	20	63.8
52	31	Mary Palmer, - - -	18	...	242 N. Fifteenth street, -	72	75	80	75	50	91	47	41	46	68	62	62	58	63.6
2	32	Mary Birch, - - -	16	...	1019 S. Seventh street, -	75	70	88	56	57	43	84	28	79	88	90	32	33	63.3
64	33	Susanna Simpson, -	17	...	1638 Pine street, - -	76	90	88	67	60	49	50	53	43	72	88	40	45	63.2

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10	34	Ellen Buchanan, -	17	...	314 S. Second street, -	61	60	100	71	55	43	47	40	51	88	100	45	58	63.0
31	35	Mary McKee, - -	19	...	228 N. Front street, -	61	85	100	68	70	63	47	55	80	72	63	12	35	62.4
37	36	Anna Wright, - -	19	...	1633 Poplar street, -	71	85	92	57	55	40	23	35	63	63	90	87	45	62.0
4	37	Anna E. Maguire, -	17	3	Market, above Till st., -	66	80	92	59	54	24	83	49	33	77	93	30	53	61.0
59	38	Cornelia A. Bett, -	18	...	1135 Lombard street, -	65	90	84	55	67	51	73	45	53	66	42	23	47	58.9
7	39	Charlotte E. Brown,	18	6	2102 Callowhill street, -	72	90	92	66	77	37	30	58	57	63	60	...	62	58.8
36	40	Phoebe H. Bowen, .	17	...	1010 Melon street, - -	75	85	92	68	70	53	56	50	43	52	48	12	55	58.4
32	41	Lizzie E. Allen, -	17	..	Townsend, bet. Wood and [Dauphin sts.,	82	95	92	52	80	39	69	52	36	88	37	18	18	58.3
11	42	Matilda Morton, -	17	1	Ninth and Jefferson sts.,	73	95	92	67	69	89	26	42	26	43	67	20	47	58.2
9	43	Margaret C. Mead, -	23	72	13 N. Second street, -	50	95	100	29	17	71	97	68	60	43	35	75	12	57.8
46	44	Annie M. McQuiggan,	18	...	1620 Buttonwood street,	62	85	84	65	77	80	20	45	86	47	18	50	30	57.6
49	45	Alice P. Roberts, -	17	...	Carpenters' Hall, Chest- [mont street,	66	70	84	39	67	51	70	57	74	67	25	50	20	56.9
33	46	Margaret McCormack	21	...	324 Thompson street, -	80	85	96	66	75	60	49	52	41	63	27	31	12	56.7
23	47	Martha Bradford, -	18	...	1117 Mount Vernon st., -	71	90	80	93	82	27	30	47	90	77	33	00	13	56.4
56	48	Frances Ren, - -	18	...	.....	69	100	92	76	45	39	53	34	31	63	55	27	37	55.5
61	49	.....	20	24	.....	63	100	96	48	55	66	49	30	71	43	22	60	27	55.5
1	50	Mary E. Thomas, -	16	...	327 Green street, - -	57	90	88	63	62	71	43	51	23	47	68	38	17	55.2
88	51	.....	...	...	.....	68	65	84	49	59	60	41	38	46	47	35	75	43	54.6
26	52	.....	...	...	.....	69	80	80	45	27	24	57	62	66	88	60	27	17	54.0
13	53	.....	...	...	.....	66	90	92	67	77	31	66	39	14	55	45	35	33	53.9
20	54	.....	...	...	.....	69	65	92	79	75	56	56	28	20	42	30	25	50	52.8
45	55	.....	...	...	.....	65	75	84	42	80	36	51	50	40	80	62	...	12	52.1
6	56	.....	...	...	.....	63	80	100	54	59	53	32	58	46	55	25	35	10	51.5
19	57	.....	...	...	.....	81	100	96	69	42	29	21	20	41	42	30	43	38	50.2
3	58	.....	...	...	.....	77	70	88	28	47	50	43	44	21	52	67	38	22	49.8
5	59	.....	...	...	.....	52	80	84	62	47	24	70	23	27	52	80	35	09	49.6
46	60	.....	...	...	.....	59	70	80	33	62	36	63	47	39	72	28	32	28	49.2
60	61	.....	...	...	.....	52	90	80	...	55	41	60	45	36	37	30	26	...	42.5
43	62	.....	...	...	.....	66	75	76	17	47	34	10	...	30	47	62	48	...	39.5
50	63	.....	...	...	.....	55	80	76	37	40	21	37	33	51	30	20	00	05	37.3
42	64	.....	...	...	.....	59	80	89	47	20	00	20	33	23	30	25	...	...	32.1
69	65	.....	...	...	.....	51	80	84	23	14	06	23	13	03	38	30	00	00	28.1